

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

John F. Engelhardt et al.

Examiner:

Daniel M Sullivan

Serial No.:

09/689,136

Group Art Unit:

1636

Filed:

October 12, 2000

Docket:

875.032US1

Title:

COMPOUNDS AND METHODS TO ENHANCE rAAV TRANSDUCTION

## SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

MS Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

In compliance with the duty imposed by 37 C.F.R. § 1.56, and in accordance with 37 C.F.R. §§ 1.97 et. seq., the enclosed materials are brought to the attention of the Examiner for consideration in connection with the above-identified patent application. Applicants respectfully request that this Supplemental Information Disclosure Statement be entered and the documents listed on the attached Form 1449 be considered by the Examiner and made of record. Pursuant to the provisions of MPEP 609, Applicants request that a copy of the 1449 form, initialed as being considered by the Examiner, be returned to the Applicants with the next official communication.

Pursuant to 37 C.F.R. §1.97(c)(2), Applicants have included the fee of \$180.00 as set forth in 37 C.F.R. §1.17(p). Please charge any additional fees or credit any overpayment to Deposit Account No. 19-0743.

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Pursuant to 37 C.F.R. 1.98(a)(2), Applicant believes that copies of cited U.S. Patents and Published Applications are no longer required to be provided to the Office. Notification of this change was provided in the United States Patent and Trademark Office OG Notices dated October 12, 2004. Thus, Applicant has not included copies of any Published Applications cited with this submission. Should the Office require copies to be provided, Applicant respectfully requests that notice of such requirement be directed to Applicant's below-signed representative. Applicant acknowledges the requirement to submit copies of foreign patent documents and nonpatent literature in accordance with 37 C.F.R. 1.98(a)(2).

The Examiner is invited to contact the Applicant's Representative at the below-listed telephone number if there are any questions regarding this communication.

Respectfully submitted,

JOHN F. ENGELHARDT ÉT AL.

By their Representatives,

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A. P.O. Box 2938 Minneapolis, MN 55402

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 2974 day of July, 2005.

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We are transmitting herewith the following attached items (as indicated with an "X"):

X A return postcard.

- X A Supplemental Information Disclosure Statement (2 pgs.), Form 1449 (2 pgs.), and copies of 18 cited documents.
- $\underline{X}$  A check in the amount of \$180.00 to cover the fee for consideration of Information Disclosure Statement under 1.97(c).

If not provided for in a separate paper filed herewith, Please consider this a PETITION FOR EXTENSION OF TIME for sufficient number of months to enter these papers and please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.

Customer Number 21186

Atty: Janet E. Embretson

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Name

Signature

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.

(GENERAL)

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		US P	ATENT DOCUMENTS	
Examiner Initial *	USP Document Number	Publication Date	Name of Patentee or Applicant of cited Document	Filing Date If Appropriate
	US- 2003/0103939 A1	06/05/2003	Engelhardt, J. E., et al.	07/12/2002

FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Foreign Document No	Publication Date	Name of Patentee or Applicant of cited Document	T²				
	WO-2004/090145A2	10/21/2004	Engelhardt, J. F., et al.					

	OTHER	R DOCUMENTS NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No <sup>1</sup>	include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
		BANK, U., "Review: Peptidases and Peptidase Inhibitors in the Pathogenesis of	
		Diseases", Cellular Peptidases in Immune Functions and Diseases 2, (Edited by Jurgen Langner, et al., Kluwer Academic / Plenum Publishers),(2000),349-378	
		BRÖTZ, H., "The Lantibiotic Mersacidin Inhibits Peptidoglycan Biosynthesis and the Level of Transglycosylation", Eur. J. Biochem., 246(1), (1997),193-199	
		DOUAR, AM., et al., "Intracellular Trafficking of Adeno-Associated Virus Vectors: Routing to the Late Endosomal Compartment and Proteasome Degration", Journal of Virology, 75(4), (2001), 1824-1833	
		DUAN, D., et al., "A New Dual-Vector Approach to Enhance Recombinant Adeno-Associated Virus-Mediated Gene Expression Through Intermolecular cis Activation", Nature Medicine, 6(5), (2000), 595-598	
		DUAN, D., et al., "Enhancement of Muscle Gene Delivery With Pseudotyped Adeno-Associated Virus Type 5 Correlates With Myoblast Differentiation", Journal of Virology, 75(16), (2001), 7662-7671	
		FLOTTE, T. R., et al., "Adeno-Associated Virus Vector Gene Expression Occurs in Nondividing Cells in the Absence of Vector DNA Integration", <u>American</u> <u>Journal of Respiratory Cell and Molecular Biology</u> , 11, (1994), 517-521	
		HANSEN, J., et al., "Adeno-Associated Virus Type 2-Mediated Gene Transfer: Altered Endocytic Processing Enhances Transduction Efficiency in Murine Fibroblasts", Journal of Virology, 75(9), (2001), 4080-4090	
		HANSEN, J., et al., "Impaired Intracellular Trafficking of Adeno-Associated Virus Type 2 Vectors Limits Efficient Transduction of Murine Fibroblasts", <u>Journal of Virology</u> , 74(2), (2000),992-996	
		PARKER, J. S., et al., "Cellular Uptake and Infection by Canine Parvovirus Involves Rapid Dynamin-Regulated Clathrin-Mediated Endocytosis, Followed by Slower Intracellular Trafficking", Journal of Virology, 74(4), (2000),1919-1930	
		SANLIOGLU, S., et al., "Endocytosis and Nuclear Traffickling of Adeno- Associated Virus Type 2 Are Controlled by Rac1 and Phosphatidylinositol-3 Kinase Activation", Journal of Virology, 74(19), (2000),9184-9196	

**EXAMINER** 

**DATE CONSIDERED** 

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Approved for use through 10/31/2002. OMB 651-0031
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	OTHE	R DOCUMENTS NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
		SANLIOGLU, S., et al., "Loss of ATM Function Enhances Recombinant Adeno-	
		Associated Virus Transduction and Integration Through Pathways Similar to UV Irradiation", Virology, 268, (2000),68-78	
		SANLIOGLU, S., et al., "Rate Limiting Steps of AAV Transduction and	
		Implications for Human Gene Therapy", <u>Current Gene Therapy</u> , <u>1</u> , (2001),137-147	
	_	SANLIOGLU, S., et al., "Two Independent Molecular Pathways for Recombinant	
		Adeno-Associated Virus Genome Conversion Occur After UV-C and E4orf6	
		Augmentation of Transduction", Human Gene Therapy, 10(4), (1999),591-602	
		SASAKI, T., et al., "Inhibitory Effect of di- and Tripeptidyl Aldehydes on Calpains and Cathepsins", Journal of Enzyme Inhibition, 3(3), (1990),195-201	
		STAUB, O., "Chapter 5 Regulation of ENaC by Interacting Proteins and by	
		Ubiquitination", Current Topics in Membranes, 47 - Amiloride-Sensitive Sodium	İ
		Channels - Physiology and Functional Diversity, Edited by Dale J. Benos,	
		Academic Press, Publisher,(1999),65-87	
		STAUB, O., "Regulation of Stability and Functional of the Epithelial Na* Channel	
		(ENaC) by Ubiquitination", The EMBO Journal, 16(21), (1997),6325-6336	
		STOKES, J. B., "Regulation of rENac mRNA by Dietary NaCl and Steroids:	
		Organ, Tissue, and Steroid Heterogeneity", American Journal of Physiology, Cell	
		Physiology, 274, (1998),C1699-C1707	